# KIDNEY BIOPSY FINDINGS IN PATIENTS WITH PRIMARY SJÖGREN SYNDROME

*Authors :Kamila Klimek[1], Francisco J Toyos-Saenz-de Miera[2], Jose F de la Prada-Alvarez[1], Sofia Pereira-Gallardo[3], Sebastian Umbria-Jimenez[3], Federico Navarro-Sarabia[2,] Mercedes Salgueira-Lazo[1]*

[1] Department of Nephrology; [2]Department of Rheumatology; [3]Department of Pathology
Virgen Macarena University Hospital, Seville, Spain

## OBJECTIVES

Renal involvement in Primary Sjögren Syndrome (pSS) varies widely from 2 to 67 percent. The most common presentation of renal involvement is tubulointerstitial nephritis (TIN). Glomerulonephritis (GN) is unusual and it is associated with a worse prognosis. In this study, renal biopsy findings of a cohort of patients with primary Sjögren syndrome were analyzed and correlated with their renal manifestations.

## METHODS

A retrospective study was conducted. The clinical records of 397 consecutive patients who underwent renal biopsy between 2000-2016 due to renal impairment were retrospectively reassessed. The clinical records of all the 110 patients with pSS followed in the Rheumatology Department were simultaneously reviewed. The inclusion criteria were a established diagnosis of pSS confirmed by an expert rheumatologist. They also had to meet the 2002 and 2016 American-European Consensus Classification criteria. Exclusion criteria included the evidence of other rheumatologic/connective tissue disorders, or the presence of anti-DNA/anti-Sm antibodies.
6 patients met criteria. Their kidney biopsy specimens were reassessed by a renal pathologist, who confirmed the findings in each biopsy report through independent review. The clinical presentation of the renal disease was evaluated by an expert nephrologist, including clinical, therapeutic and laboratory data. Response to treatment through follow-up was also analyzed.

## RESULTS

The 6 selected patients were females, with a mean age of 43.5 years. The mean follow-up was 5.8 years. Sjögren syndrome preceded renal manifestations by a mean of 7.8 years. Persistent non-nephrotic proteinuria was the indication for kidney biopsy in all cases. The mean patients´ serum creatinine concentration was 0.83 mg/dl. eGFR <60mL/min/1.73 m2 was only observed in one case. GN and TIN were concomitantly identified in every biopsy (Table 1). Chronic TIN was the most frequent finding (83.3%). A *full house pattern* was found in 3 biopsies. All patients exhibited normal creatinine levels and GFR range at last follow-up. All patients presented alterations of urine sample at the biopsy time. The clinical manifestation of tubulointerstitial involvement could not be evaluated due to the absence of data.

## CONCLUSIONS

TIN is the most common finding in pSS. A different range of glomerular involvement may appear. In our series, the glomerular involvement in Sjögren syndrome does not seem to be related to a worse prognosis.

The *full house pattern* can be found in GN secondary to pSS. Taking this into account, a close follow-up is mandatory because of the risk of progression to systemic lupus erythematosus.

Table 1.

| Patient number | Comorbidities | Age at the time of biopsy | Biopsy findings | | | Follow-up period (years) | Renal function at the time of biopsy | | | | Renal function at last follow-up | | | | Post biopsy treatment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Glomerular involvement | Patrón Full Pattern | TIN | | Creatinine (mg/dl) | Urine simple | | | Creatinine (mg/dl) | Urine sample | | | |
| | | | | | | | | Protein (mg/dl) | Red blood cells | White blood cells | | Protein (mg/dl) | Red blood cells | White blood cells | |
| 1 | Alzheimer disease, osteoporosis, polyartosis | 74 | MCD | - | Chronic | 7 | 0,9 | 0,7 | - | - | 0,57 | 0 | - | - | GCs |
| 2 | Myoclonic seizures | 24 | Focal proliferative pattern | + | Chronic | 2 | 0,54 | 75 | + | + | 0,86 | 30 | - | - | GCs, MMF, HC |
| 3 | Pulmonary embolism, hyperfibrinogenaemia, prothrombin mutation (G20210A), familiar hypercholesterolemia | 39 | MPGN | - | Chronic | 2 | 0,81 | 160 | + | - | 0,75 | 0 | - | - | HC |
| 4 | Asthma, tension headache, primary hyperparathyroidism treated by parathyroidectomy, nephrolithiasis | 45 | MPGN | + | Acute and chronic | 0,5 | 0,72 | 100 | + | + | 0,84 | 200 | - | - | MMF, GCs |
| 5 | Osteoporosis | 42 | Diffuse proliferative pattern | + | Chronic | 11 | 0,52 | 50 | + | + | 0,68 | 0 | + | + | MMF, GCs |
| 6 | Arterial hypertension, recurrent pneumonias and urine tract infection, osteoporosis, depression | 37 | MPGN type 1 with epithelial crescents | - | Chronic | 11 | 1,5 | 100 | + | + | 0,98 | 30 | + | + | MMF, GCs. CP |

Abbreviations: MCD, minimal changes disease; MPGN, membranoproliferative glomerulonephritis; TIN tubulointerstitial nephritis; HC, Hydroxychloroquine; GCs, Glucocorticoids, MMF, Mycophenolate mofetil, CP, Cyclophosamide

## REFERENCES


- TeVitali C, Bombardieri S, Moutsopoulos HM, et al. Preliminary criteria for the classification of Sjögren's syndrome. Results of a prospective concerted action supported by the European Community. Arthritis Rheum 1993;36:340-7.
- Pertovaara M, Korpela M, Pasternack A. Factors predictive of renal involvement in patients with primary Sjögren's syndrome. Clin Nephrol 2001;56:10-8.
- Bossini N, Savoldi S, Franceschini F, et al. Clinical and morphological features of kidney involvement in primary Sjögren's syndrome. Nephrol Dial Transplant 2001; 16:2328-36.
- Shiboski CH, Shiboski SC, Seror R, et al. 2016 American College of Rheumatology/European League Against Rheumatism Classification Criteria for Primary Sjögren's Syndrome: A Consensus and Data-Driven Methodology Involving Three International Patient Cohorts. Arthritis Rheumatol 2017; 69:35-45.
- Maripuri S, Grande JP, Osborn TG, et al. Renal Involvement in Primary Sjögren's Syndrome: A Clinicopathologic Study. Clin J Am Soc Nephrol. 2009; 4:1423-31.
- Evans R, Zdebik A, Ciurtin C, et al. Renal involvement in primary Sjögren's syndrome. Rheumatology 2015; 54:1541-8
- Martin M et al. Nefropatía full house no lúpica, aspectos clínicos e histológicos. Experiencia en dos centros hospitalarios de Medellin, Colombia. Rev. Colomb. Reumatol. 2012:3;124-130
- Goules AV, Tatouli IP, Moutsopoulos HM et al. Clinically significant renal involvement in primary Sjögren's syndrome: clinical presentation and outcome. Arthritis Rheum 2013; 65: 2945–2953
- Rúa-Figueroa I et al. Manual SER de diagnóstico y tratamiento de las enfermedades reumáticas autoinmunes sistémicas, Elsevier 2014
- Ren H, et al. Renal involvement and Follow up of 130 patients with primary Sjögren síndrome. J Rheumatol.2008;35:278-284


54 ERA
70--SP
Clinical nephrology I
Kamila Klimek
DOI: 10.3252/pso.eu.54ERA.2017
ePosters supported by F. Hoffmann- La Roche Ltd.